## AMENDMENTS TO THE SPECIFICATION

[0027] The bag 12 is a seamless enclosure made of a suitable lightweight impact-resistant material that can stop high-energy projectiles such as bullets or shrapnel from an exploding bomb. In order to minimize bag weight and thickness, preferred materials are of the type made of extended chain polyethylene such as Spectra® made by Honeywell International Inc. in U.S.A and Dynema™ made by DSM N.V. in The Netherlands. Other materials such as those based on aramid could also be used but would require a thicker and heavier bag for containment of the same explosive device due to their inferior ballistic properties. ~~The impact-resistant material, which is usually composed of a plurality of plies, is preferably contained within a fabric envelope. A preferred material for the fabric envelope is nylon.~~

[0028] The bag 12 or seamless enclosure is formed by a plurality of independent interleaved plies, typically of woven material. Naturally, the material and number of plies are selected to contain fragments projected by an explosion as aforementioned. Preferably, the interleaved plies of impact-resistant material are contained within a fabric envelope 44 (Fig. 6) that will be described further on. A preferred material for the fabric envelope is nylon.

~~[0028]~~ [0029] While the bag 12 can be separately formed over a prismatic mold, ~~is it~~ it is preferably formed directly on the inner casing 14 to reduce time and costs of manufacturing. Referring to Fig. 5, corner pieces 42 are made of impact-resistant material and glued onto each of the eight (8) corners of the inner casing 16. The corner pieces 42 are preferably laminated ~~such as to be rigid~~ for rigidity, with separate corner pieces for the corners between side panels and for the corners between foldable panels. The corner pieces 42 need to be small enough so as not to hinder the folding of the inner casing ~~14~~ 16. A pair of rods ~~44~~ 43 are attached to opposite top corners of the inner casing 16 to retain the bag 12 and outer casing 14.

~~[0029]~~ [0030] Referring to Fig.6, an inner portion of the fabric envelope 44 designed to contain the impact-resistant material of the bag 12 is shown. A plurality of semi-rigid reinforced shapes 46 are stitched onto the envelope 44 to give a certain rigidity to the bag 12 while allowing for easy folding thereof. The reinforced shapes 46 are preferably made of plastic or hard paper covered with the fabric forming the envelope 44. Referring to Fig.7, the inner portion of the fabric envelope 44 is positioned over the sides and top panel of the inner casing 16, with the reinforced shapes 46 facing inward, and attached to the rods ~~44~~ 43.

~~[0030]~~ [0031] Referring to Figs.8a-8b, the impact-resistant material is provided in a continuous fabric form on first, second and third rolls 48,50,52. The impact-resistant material is wrapped around the inner casing 16 covered with the inner portion of the fabric envelope 44 according to the following. First, the material from the first roll 48 and the second roll 50 are connected to the inner portion of the fabric envelope 44 along adjacent bottom edges. The material from the third roll 52 is connected along a side edge, perpendicularly to the first and second rolls 48,50. The first roll 48 is brought upwards, over the top panel 20 and downwards, such as to cover opposite sides and the top edge 20 with one layer of material. The second roll 50 is then also brought upwards, over the top panel 20 and downwards, such as to cover the other opposite sides and the top edge 20 with one layer of material. Finally, the third roll 52 is brought around the inner casing 16 for a complete turn, such as to cover all sides with a layer of material.

[0032] The first, second and third rolls 48,50,52 have thus been brought from a first position illustrated in Fig.8a to a second position illustrated in Fig.8b. First and second rolls 48,50 are then successively returned to their original position before the third roll 52 is brought around the inner casing 16 for another complete turn, thereby completing a cycle.

[0033] At the end of this cycle, each side as well as the top panel are covered with four (4) layers of material, with two layers extending in a first direction and two others extending in a second direction perpendicular to the first direction. All edges between adjacent sides and between the sides and top panel are covered with only two layers. This is compensated by the corner pieces 42 that are installed on the inner casing 16 under the fabric envelope 44 (see Fig.5). Thus, the cycle is repeated until a desired number of layers is reached, and the corner pieces [44] 42 ~~are formed so as to be composed of half this desired number of layers, to obtain edges that are equally covered~~. make up half of the desired number of layers on the edges allowing for an overall constant thickness.

[0034] In a preferred embodiment, each layer of material is composed of two plies of extended chain polyethylene fiber fabric having an orientation of [0°/90°], and a total of 90 layers is applied on the sides and top. Once the desired number of layers is reached, an outer portion of the fabric envelope (not shown) is disposed over the impact-resistant material and suitably attached, such as by sewing, to the inner portion of the fabric envelope. Therefore, the impact-resistant material~~, such as to~~ is completely ~~enclose~~ enclosed and ~~contain the impact resistant material to form bag walls.~~ contained thereby forming walls defining the seamless enclosure.

~~[0031]~~ [0035] The wrapping process of the impact-resistant material will produce a weaving effect of the layers, which will help the bag 12 to remain whole after an explosion. By contrast, a bag made from separate layers of material would tend to be separated by the force of the blast, which would make the bag inefficient to contain shrapnel.

~~[0032]~~ [0036] The resulting bag 12 is thus prismatic in shape, with an open bottom end 18, walls having an equivalent thickness of impact-resistant material, and continuous corners, i.e. without mechanical attachments such as hinges to hold the walls together. Bolted, riveted, or hinged joints between adjacent walls of a container inherently introduce stress concentrations that can be the source of failure of the container during an explosion, and provide fragments that can be propelled by the explosion if the joints fail. By having joints made of impact-resistant material that are at least partially continuous with the adjacent walls, the stress distribution in the bag 12 is optimized, and the bag 12 is lighter than an equivalent bag having metallic joints. Also, ~~and contrary to hinged or similar joint,~~ the joints of the present invention form no opening by which shrapnel produced by the explosion could escape.

~~[0033]~~ [0037] Alternative fabrication methods are also considered to produce the bag 12 including, but not limited to, filament or tape winding, as long as all the walls of the finished bag 12 have an equivalent material thickness and all joints are at least partly continuous with adjacent walls in order to obtain an adequate stress distribution in the bag.

~~[0034]~~ [0038] The outer casing 14 is manufactured in the same manner as described for the inner casing 16 (see Figs.3-4) with a top panel, a rigid portion composed of four side panels, and a foldable portion composed of four foldable panels, each one hingedly connected to one of the four side panels. This is illustrated in Fig.2, where the assembled container 10 is shown in a folded position. The foldable panels are retained in a deployed configuration with the help of the attachment system 54 shown in Fig.9. The outer casing 14 is assembled such as to be retained on the rods 44 connected to the inner casing 16, to insure integrality of the container 10. The primary function of the outer casing 14 is to facilitate manipulating of the container 10. Thus, it can be made from a rigid but relatively light material, such as sandwich panels made of a Styrofoam core between two thin sheets of corrugated polyethylene. In addition, the outer casing 14 can incorporate at strategic locations a number of handles and wheels (not shown) to facilitate lifting and moving by a single person or even by a remotely controlled robot.

~~[0035]~~ [0039] The container 10 presents several advantages, one of which being its low weight. Since the extended chain polyethylene fiber material has a strength to weight ratio

which is reported to be in the range of 8 to 10 times that of steel, and both the blast mitigation panels of the inner casing and the panels of the outer casing are relatively light, the container 10 is considerably lighter than an equivalent container made of steel. For example, a container designed to completely contain a blast and shrapnel produced by a pipe bomb having a diameter of 2 inches, a length of 12 inches and containing half a pound of black gun powder can weigh as little as 120 pounds when fully assembled. Such a container can easily be transported by two operators. An equivalent steel container could weight as much as 1000 pounds or more, and thus would require special equipment in order to be transported.

~~[0036]~~ [0040] Yet another advantage of the container 10 is the ability of the container to be folded, due to the foldable portions of the inner and outer casing, and to the foldable property of the impact-resistant bag. This effectively reduces the storage space necessary for the container, which can be a considerable advantage in numerous situations where such a container needs to be stored in a limited space, for example a police car trunk or a closet in an airport or a post office.

~~[0037]~~ [0041] In addition, the folded container is easily deployed and quickly readied for use. In a preferred embodiment, the folded container can be deployed in less than one minute. The open bottom allows for the container to be simply lowered over the explosive device, effectively enclosing it without manipulating the device. This reduces the risk of accidental detonation occurring during the deployment of the container. With the use of hooks or the like on the outer casing, the container 10 becomes very easy to deploy through the use of a robot, thus further minimizing the risk of injury during deployment.

~~[0037]~~ [0042] The container 10 also acts to contain gas produced by the explosion and as such will absorb a majority of the noise produced.

~~[0039]~~ [0043] In an alternative embodiment, it is considered to provide a container composed of an outer casing 14 and bag 12 only. In this case, the impact-resistant material forming the bag 12 would have to be wrapped around a mold of appropriate size and shape in order to form the bag walls, then removed from the mold and attached inside the outer casing 14. This container could be used as is or in combination with other blast mitigation means, such as foam similar to that used in the Universal Containment System of Vanguard Response Systems Inc. previously described. A significant advantage of using such foam is that neutralizing agents can be added to the foam in order to mitigate the effects of a chemical or biological threat in an explosive device. In this case, the container can be designed integrally with the foaming medium and its own sufficient source of water, the

mixing of which can be deployable remotely by radio-control or other such means. Additionally, these or other means of mitigation could be combined in the container to better exploit the advantages of each method.

~~[0040]~~ [0044] In another alternative embodiment, it is considered to provide a container composed solely of the bag 12. While the bag 12 is foldable, the impact-resistant material still possesses sufficient rigidity to allow the bag 12 to maintain its shape when deployed alone. As in the previous alternative embodiment, the impact-resistant material forming the bag 12 would have to be wrapped around a mold of appropriate size and shape in order to form the bag walls, then be removed from that mold. Although a little harder to manipulate than the embodiments with an outer casing, this embodiment can still be easily transported and deployed over the explosive device. Since no attachment systems are used, this embodiment can be deployed quicker than the previous embodiments. In addition, the container according to this embodiment necessitates less storage space than the previous embodiments because of the completely foldable quality of the impact-resistant material, which can adapt to a variety of storage space configurations.

~~[0041]~~ [0045] It is further considered to provide an embodiment where the multi-layered bag 12 is laminated after the impact-resistant material is wrapped using the wrapping technique described. This laminated bag 12 can be used alone or with inner and/or outer casings, although in this embodiment, the container 10 is not foldable. The laminated bag 12 used alone is easy to manipulate, can integrate wheels and/or hooks to facilitate deployment by a robot, and will effectively contain shrapnel from an explosion.

~~[0042]~~ [0046] It is also considered to provide containers having an alternative shape, for example cylindrical or semi-spherical containers. The materials used for the inner casing and outer casing can easily be adapted to form rounded panels. In addition, cylindrical or semi-spherical bags of impact-resistant material can be manufactured in a continuous manner through known techniques, one of which being filament winding, producing a bag having a uniform thickness of material at all points.

~~[0043]~~ [0047] The embodiments of the invention described above are intended to be exemplary. Those skilled in the art will therefore appreciate that the forgoing description is illustrative only, and that various alternatives and modifications can be devised without departing from the spirit of the present invention. Accordingly, the present is intended to embrace all such alternatives, modifications and variances which fall within the scope of the appended claims.